XPERIA™ PLAY

R800a, R800at, R88i, R800x

Sony Ericsson
make.believe

Purpose of this document

Sony Ericsson product White papers are intended to give an overview of a product and provide details in relevant areas of technology.

Document history

Version		
August 2011	Eighth released version	Version 8

Sony Ericsson Developer World

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Product overview

Sony Ericsson Xperia™ PLAY - Slide out to wow

Slot home the winning goal. Conquer the demon dragons. Hit the ground with guns blazing. Or even work, if you have to. Simply switch from calls, emails and Internet browsing, to playing your favourite console games. On Xperia™ PLAY. The full-featured PlayStation™ certified Android™ smartphone with a 4" screen and real console controls that's designed to do everything you need. So you can immerse yourself in the glorious games you want.

Geared up for gaming

Slide out the controls and smash the volley into the top corner. Or crush the enemy in close quarter combat. In superb stereo sound. Pass like a pro using dedicated gaming keys and view the action on the whole screen, without your fingers getting in the way. High octane action brought to life with a fast 1GHz processor and powerful Adreno 205 graphics processor. The crispest colours and true 3D gaming graphics. Couldn't be better, could it?

Feast on the fun

What's your game? Full flowing football on FIFA 10? Or full contact karate with Bruce Lee: Dragon Warrior? Play the preloaded games, or download what you want from Sony and other top gaming publishers. Choose from thousands of games on Android Market™. Speak, search, read, play, enjoy. With more than 100,000 apps available you won't have time to get bored.

Want more? Get instant access to Google™ mobile services like YouTube™, Google Maps™, Gmail™, or find what you want on the web with Google Voice Search™. The latest of everything on a smartphone that's made for gamers.

Xperia™ Play gaming controls

Control the game from the palm of your hand. With the unique gaming control design of Sony Playstation® transformed into Xperia™ Play you will have a gaming experience hard to resist.

Gaming control keys

1. Left trigger
2. Directional buttons
3. Game menu
4. Touch screen
5. Touch pad
6. △ Button
7. □ Button
8. ○ Button
9. ✕ Button
10. Select key
11. Right trigger
12. Start key

Facts – dimensions, weight, performance and networks

Operating system	Google™ Android 2.3 (Gingerbread)
Processor	1 GHz Scorpion ARMv7
Size	119 × 62 ×16 mm
Weight	175 grams
Available colours	Black White
Main screen	
Colours	16,777,216 colour TFT
Resolution	480×854 pixels
Size (diagonal)	4 inches
Input mechanisms	
Text input	On-screen QWERTY keyboard
Touch screen	Capacitive (multi-touch)
Gesture control	Yes
Memory	
Phone memory	Up to 400 MB
Memory card support	microSD™, up to 32 GB
Camera	
Camera resolution	5.1 megapixel
Photo flash	Yes – LED
Video recording	Yes – 480p
Sensors	
Accelerometer	Yes
Proximity sensor	Yes
Ambient light sensor	Yes
Magnetometer	Yes
eCompass™	Yes

Networks	
R800a	UMTS HSPA 800 (Band VI), 850 (Band V), 1900 (Band II), 2100 (Band I) GSM GPRS/EDGE 850, 900, 1800, 1900
R800at	UMTS HSPA 800 (Band VI), 850 (Band V), 1900 (Band II), 2100 (Band I) GSM GPRS/EDGE 850, 900, 1800, 1900
R800i	UMTS HSPA 900 (Band VIII), 2100 (Band I) GSM GPRS/EDGE 850, 900, 1800, 1900
R800x	CDMA2000®, cdmaOne, EVDO
Data transfer speeds	
GSM GPRS (GPRS MS Class 10/ AT&T Class 10)	Up to 80 kbps (download). Up to 20 kbps (upload)
GSM EDGE (E-GPRS MS Class 12)	Up to 237 kbps (download). Up to 59 kbps (upload)
UMTS HSPA (HS-DSCH Cat. 8 download)	Up to 7.2 Mbps
UMTS HSPA (E-DCH Cat. 6 upload)	Up to 5.76 Mbps
1XEV-DO	Up to 3.1 Mbps (download). Up to 1.8 Mbps (upload)
Talk time (GSM)	Up to 8 hours 25 min*
Standby time (GSM)	Up to 425 hours*
Talk time (UMTS)	Up to 6 hours 25 min*
Standby time (UMTS)	Up to 413 hours*
Talk time (CDMA2000®)	Up to 7 hours 40 min*
Standby time (CDMA2000®)	Up to 405 hours*
Game play time (Java)	Up to 5 hours 35 min
MP3 playback	Up to 30 hours 35 min
Battery	1500 mAh

* Values are according to GSM Association Battery Life Measurement Technique.

NOTE: *Battery performance may vary depending on network conditions and configurations, and phone usage.*

Categorised feature list

Camera
5.1 megapixel camera
Auto focus
Flash/Photo light
Front-facing camera (VGA)
Geo tagging
Send to web
Video light
Video recording

Music
Album art
Bluetooth™ stereo (A2DP)
Google Music player***
Music tones (MP3/AAC)
PlayNow™ service*
Sony Ericsson Music player**
Stereo speakers
TrackID™ music recognition*

Internet
Android Market™*
Bookmarks
Google™ search*
Google Voice™ Search*
Pan & zoom
Web browser (Webkit)

Communication
Call list
Conference calls
Facebook™ application (from
Android Market™)
Facebook inside Xperia™ 2.0
Google Talk™ video chat*
Noise Shield
Polyphonic ringtones
Speakerphone
Sony Ericsson Timescape™**
Twitter™ application (from
Android Market™)*
Vibrating alert
Video chat ready

Messaging
Android Cloud to Device
messaging (C2DM)
Conversations
Email
Google Mail™*
Instant messaging
Multimedia messaging (MMS)
Predictive text input
Sound recorder
Text messaging (SMS)

Design
Auto rotation
Keyboard (on-screen, 12 key)
Keyboard (on-screen, QWERTY)
Live wallpaper
Picture wallpaper
Screenshot capturing
Swipe to write
Touch screen

This service is not available in all markets.
**Available for R800a, R800at, R800i.*
***Available for R800x*

Entertainment	Organiser	Connectivity
3D games	Alarm clock	3.5 mm audio jack
Accelerated Adobe Flash Video	Calculator	aGPS*
Dedicated gaming keys	Calendar	Bluetooth™ technology
Gesture gaming	Document editors	DLNA Certified™***
Motion gaming	Document readers	Google Latitude™*
Sony Entertainment Networks*	E-Manual	Google Location Service*
Video streaming	Flight mode	Google Maps™ with Street View*
YouTube™*	Google Calendar™*	Media Transfer Protocol support
	Google Gallery 3D*	Micro USB Support
	Infinite button***	Native USB tethering*
	Phonebook	Modem
	Setup guide	Synchronisation via Facebook™**
	Widget manager	Synchronisation via Google Sync™*
		Synchronisation via Microsoft® Exchange ActiveSync®
		Synchronisation via Sony Ericsson Sync***
		USB High Speed 2.0 support
		USB mass storage
		USB OTG
		Wi-Fi®
		Wi-Fi® Hotspot functionallity*

This service is not available in all markets.
** *Requires Facebook™application installed on the device.*
*** *Available for R800a, R800at, R800i.*

Technologies in detail

NOTE: The information outlined below is general and levels of compliance to standards and specifications may vary between products and markets. For more information, contact Sony Ericsson Developer World or your Sony Ericsson contact person where applicable.

Device-to-device communications (local)

Bluetooth™ wireless technology

Bluetooth™ profiles supported	Advanced Audio Distribution Profile Audio/Video Control Transport Protocol Audio/Video Distribution Transport Protocol Audio/Video Remote Control Protocol Generic Audio/Video Distribution Profile Hands-Free Profile Headset Profile Object Push Profile Phone Book Access Profile RFCOMM with TS 07.10 Serial Port Profile
Core version and supported core features	v2.1 + EDR
Connectable devices	All products supporting Bluetooth™ version 1.2 or higher and at least one of the profiles above.

Wi-Fi®

Supported standards	802.11b/g/n
Connectable devices	Wi-Fi access points
Frequency band	2.4 GHz
Data transmission rate	802.11b to 11 Mbps 802.11g to 54 Mbps 802.11n to 72 Mbps
Security	Open Open WEP Shared WEP WPA Personal and WPA2 Personal
Encryption	TKIP and AES
Power save	WMM-UAPSD QoS, WMM

DLNA Certified™ (Digital Living Home Alliance)*

Supported Device Classes	M-DMS – Mobile Digital Media Server Media Types: Images Summary: The digital media server exposes the media files in your phone to a Wi-Fi® network. The files can then be accessed from other DLNA Certified™ clients.
Supported Bearers	Wi-Fi®
DRM Support	The Sony Ericsson DLNA Certified™ implementation does not support DRM-protected content.

* Available for R800a, R800at, R800i.

Gaming

Chipset	Qualcomm Snapdragon MSM8x55 chipset CPU 1 GHz Scorpion Adreno 205 GPU 245 MHz
Rendering	OpenGl ES 2.0 with texture compression support for ETC1, 16 bit RAW and 32 bit RAW.
Audio	OpenGL SL with support for ADPCM, WAV, MP3 and raw AAC.

Messaging

MMS (Multimedia Messaging Service)
According to OMA Multimedia Messaging Service v1.0 + SMIL

Email

Bearer type (IP) – UMTS variant	GPRS, EGPRS, UMTS
Bearer type (IP) – CDMA	Simple IP and Mobile IP
Character sets	BIG5 Traditional Chinese GB2312 Simplified Chinese ISO-8859-1 ISO-8859-2 Eastern Europe ISO-8859-5 Cyrillic ISO-8859-7 Greek ISO-8859-9 Turkish ISO-2022-JP Japanese KOI8-R Cyrillic USASCII UTF-8 UTF-16 Shift_JIS Japanese Windows® 874 Windows® 1251 Cyrillic Windows® 1252 Windows® 1254 Turkish Windows® 1258 Vietnamese
Protocols	POP3 and IMAP4
Push email	Microsoft® Exchange ActiveSync® (EAS)
Secure email	SSL/TLS, both port methods (POPS/IMAPS) and STARTTLS
HTML mail	Yes (read only)

More information:

www.sonyericsson.com/developer

www.openmobilealliance.org

Positioning – location based services

Supported standards:

- 3GPP™ Control Plane location (incl. Emergency location)

- 3GPP2™ Control Plane location (incl. Emergency location)

- Cell tower and Wi-Fi® positioning

- Google Location Services

Supported satellite systems:

GPS

GLONASS*

NOTE: *GPS and GLONASS are used together to calculate the position. With both systems active, the accuracy and robustness of the positioning is better in most conditions. The usage of GLONASS as an additional system is transparent both to users and developers, and the benefits are automatically available to applications currently using the Satellite Positioning API ("GPS Provider" in Android terminology).*

Synchronisation (OMA DS, EAS, Google Sync)

OMA Data Synchronisation protocol versions 1.1.2 and 1.2

OMA Data Formats: vCard 2.1, vCalendar 1.0

Microsoft® Exchange ActiveSync® protocol version 2.5

Microsoft® Exchange ActiveSync® protocol version 12

Google Sync™

More information:

www.sonyericsson.com/developer

www.openmobilealliance.org

Hearing Aid Compatibility (HAC)

Variant	M-ratings	T-ratings

R800at	M3	T3
R800a	M3	T3
R800x	M4	T4
R800i	n/a	n/a

Multimedia (audio, image and video)

Audio Playback	Decoder format	Supported in file format
	Audio decoding MPEG-1/2/2.5, audio layer 3	MP3 (.mp3), 3GPP (.3gp), MP4 (.mp4, .m4a)
	AAC, AAC+, eAAC+	3GPP (.3gp), MP4 (.mp4)
	AMR-NB, AMR-WB	3GPP (.3gp), MP4 (.mp4)
	General MIDI (GM)	SMF (.mid)
	Linear PCM 16bit	WAV (.wav)
	OTA	OTA (.ota)
	Ogg vorbis	Ogg vorbis (.ogg)
Audio Recording	**Encoder format**	**Supported in file format**
	AMR-NB, AMR-WB	3GPP (.3gp), MP4 (.mp4), AMR (.amr)
	AMR-NB, AMR-WB, AAC-LC stereo, sample rate 48 kHz bit rate 128 kbps	3GPP (.3gp), MP4 (.mp4)
Image Playback	**Decoder format**	**Supported in file format**
	1, 4, 8, 16, 24 and 32 bpp and RLE encoded formats	BMP (.bmp)
	Single and multi-frame, bitmap mask support (GIF87a format and GIF89a format)	GIF (.gif)
	Joint Photographic Experts Group	JPEG (.jpg)
	Portable Network Graphics Bitmap mask support	PNG (.png)
	Wireless Bitmap	WBMP (.wbmp)
Image Capture	**Encoder format**	**Supported in file format**
	Joint Photographic Experts Group	JPEG (.jpg)
Video Playback	**Decoder format**	**Supported in file format**
	MPEG-4 Visual Simple Profile, Advanced Simple Profile Level 6	3GPP (.3gp), MP4 (.mp4)
	H.264 High Profile Level 3.1	3GPP (.3gp), MP4 (.mp4)
	H.263 Profile 0, Profile 3 Level 70	3GPP (.3gp)

Video Recording	Encoder format	Supported in file format
	Video H.263 Profile 0, H.264 Baseline Profile Audio: AAC-LC stereo, sample rate 48 kHz bit rate 128 kbps, AMR-NB	3GPP (.3gp), MP4 (.mp4)
Audio/Video Streaming	Streaming transport	RTSP according to 3GPP™ HTTP streaming
DRM	DRM (Digital Rights Management) – features the rights and copy protection of downloaded content	OMA DRM 1.0

Web browser

Browser version	Android 2.3 Browser (Based on WebKit)
Navigation/rendering	Adobe™ Flash™ 10.3* Full page PC rendering Landscape/portrait rendering Pan & Zoom
Search	Internet Search
Browser compliancy	CSS 2.0 CSS 2.1 CSS 3.0 DOM 2.0 DOM 3.0 HTML version. 4.0 HTML version. 5.0 JavaScript 1.7/ECMA-script 262 3rd edition WebGL 1.0 XHTML Basic version 1.0 XHTML 1.1
Supported Device API	Geo-location API
Protocol compliancy	Gzip HTTP/1.1 OMA Download 1.0 TLS 1.0 and SSL 3.0

* *Updates are distributed via Android market™.*

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www.sonyericsson.com/developer

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